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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/671,567      | 09/27/2000  | Ming-Tsun Hsieh      | JCLA5635            | 4641             |

7590

08/24/2004

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| EXAMINER |
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VILLECCO, JOHN M

| ART UNIT | PAPER NUMBER |
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2612

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/671,567

**Applicant(s)**

HSIEH, MING-TSUN

**Examiner**

John M. Villecco

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see pages 8 and 9, filed June 14, 2004, with respect to the rejection(s) of claim(s) 10 and 13 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ayukawa et al. (U.S. Patent No. 6,404,694). The examiner believes that the applicant is correct in his assertion that an inappropriate obviousness statement was made regarding claim 13. Therefore, a new grounds of rejection of newly amended claim 10, which brought in subject matter of claim 13, has been presented in view of Ayukawa.
2. **This action is non-final** based on the new grounds of rejection (which was not necessitated by amendment) presented below.
3. The terminal disclaimer filed on August 4, 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 6,642,961 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Younse et al. (U.S. Patent No. 4,805,023) in view of Ayukawa et al. (U.S. Patent No. 6,404,694).**

6. Regarding *claim 10*, Younse discloses a CCD imager defect compensator which includes a PROM (11) for storing a plurality of defective pixel addresses and a comparator (13) for comparing the defective pixel address with the current pixel address from the pixel address counter (15). When the defective pixel address and the pixel address are the same an inhibit signal is output. This is interpreted to be a defective pixel flag since it is designating that the current pixel is a defective pixel. See column 2, line 43 to column 3, line 30.

However, Younse fails to specifically disclose that the defective pixel addresses are arranged in an ascending order in the memory element. Ayukawa, on the other hand, discloses that it is well known in the art to output data in ascending order because it is a fast way to output the data. See column 15, line 35 to column 16, line 31. Ayukawa discloses that processors generally read data items consecutively, from consecutive addresses. When used in conjunction with Younse it would have been obvious to access the memory sequentially, thus storing the pixel addresses in ascending order, in order to facilitate the speedy readout of the pixel data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the pixel addresses of Younse in ascending order so that they may be accessed sequentially in a fast manner, thus enabling less processing in order to output the required image data.

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7. As for *claim 12*, Younse discloses the use of a line pointer which supplies the address for the PROM (33). The line pointer is interpreted to be the index. See column 3, lines 36-38.

8. **Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Younse et al. (U.S. Patent No. 4,805,023) in view of Ayukawa et al. (U.S. Patent No. 6,404,694) and further in view of Heller et al. (U.S. Patent No. 6,396,539).**

9. Regarding *claim 11*, as mentioned above in the discussion of claim 10, the combination of Younse and Ayukawa discloses all of the limitations of the parent claim. However, neither Younse nor Ayukawa specifically discloses that the memory element is a fuse array. Heller, on the other hand, discloses that it is well known in the art to use a fuse array to store defective pixel addresses. More specifically, Heller discloses a fuse memory (14) for storing the defective pixel locations of the imager (12). It is well known in the art that a fuse memory is a type of PROM. The use of a fuse memory is a more specific memory arrangement for use in Younse and one of ordinary skill in the art would have taken into consideration the different types of memories for storing the defective pixel addresses. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a fuse memory for the PROM memory of Younse.

***Allowable Subject Matter***

10. Claims 1-9 are allowed.

11. The following is an examiner's statement of reasons for allowance:

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Regarding claims 1 and 5, the primary reason for allowance is that the prior art fails to teach or reasonably suggest comparing the defective pixel address with an empty signature if the sensor address is not equal to the defective pixel address and then increasing the index value by one unit if the defective pixel address is equal to the empty signature.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (For either formal or informal communications intended for entry. For informal or draft communications, please label **"PROPOSED"** or **"DRAFT"**)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).

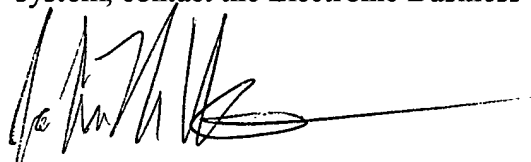
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (703) 305-1460.

The examiner can normally be reached on Monday-Thursday.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John M. Villecco  
August 17, 2004



**AUNG MOE**  
**PRIMARY EXAMINER**